

PECAD

Production Estimates & Crop Assessment Division
Foreign Agricultural Service, USDA

Using:

FAS' Attaché Reports • Field Travel • Satellite/Remote Sensing
Weather Data • Official Gov't Statistics • Crop Models

To Produce:

“The Most Objective and Accurate Assessment of the Global
Agricultural Production Outlook and the Conditions Affecting
Food Security in the World”

FSA/FAS Mission

FSA

... promoting the security and stability of America's food supply.

FAS

... promoting the sale of U.S. agricultural products and reporting on world food security.

FAS Food Security Mandate

According to the Code of Federal Regulations

- **“Maintain a worldwide agricultural intelligence and reporting system...”**
 - **“Conduct studies of worldwide production, trade, marketing, prices, consumption, and other factors affecting exports and imports of U.S. agricultural commodities...”**
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FAS Global Intelligence

Implementing the Mandate

- **FAS maintains a worldwide agricultural intelligence and reporting system to develop and disseminate information on world agricultural production and trade.**
 - **Agricultural counselors and attaches in 75 overseas offices serving 110 countries.**
 - **Has used remotely sensed imagery and weather data to monitor crop conditions since 1979.**
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FAS Global Monitoring

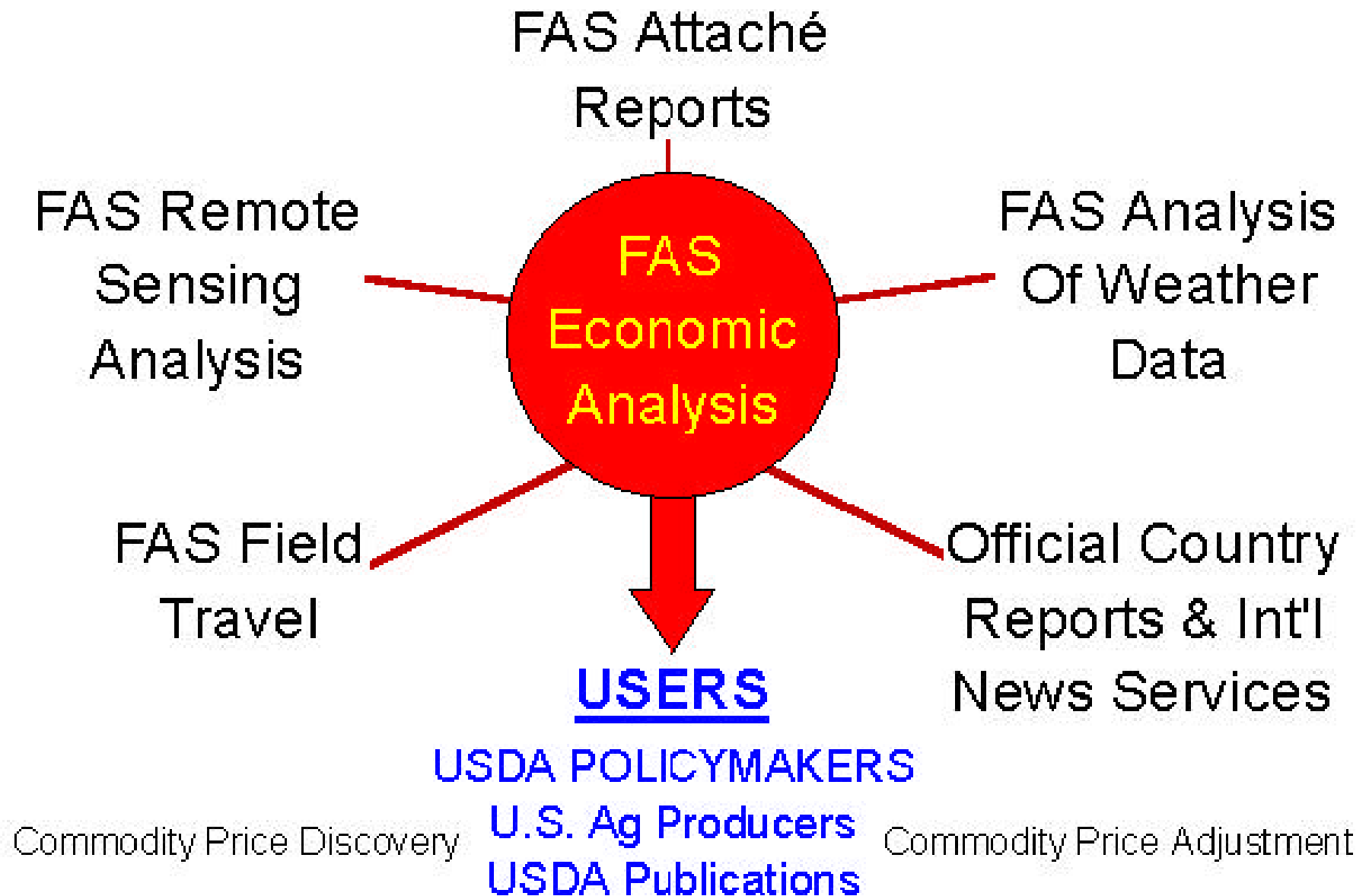
To Monitor, Forecast, and Report on World Food Supply

- “USDA maintains an unrivaled national and global system for developing, using, and reporting data and information on world agriculture.” *Congressional Research Service*
 - Overall priority given to monitoring the major commercial producers and exporters.
 - Monitors and forecasts areas of the world that are prone to drought, food shortages and famine conditions.
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Global Monitoring Data Sources

- **NOAA AVHRR: within 3 days**
 - **Landsat TM: within 10 days**
 - **SPOT: within 10 days**
 - **Global U.S. Air Force Weather: next day**
 - **World Meteorological Org.: next day**
 - **FAS Overseas Offices**
 - **News Services**
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CONVERGENCE OF EVIDENCE METHODOLOGY

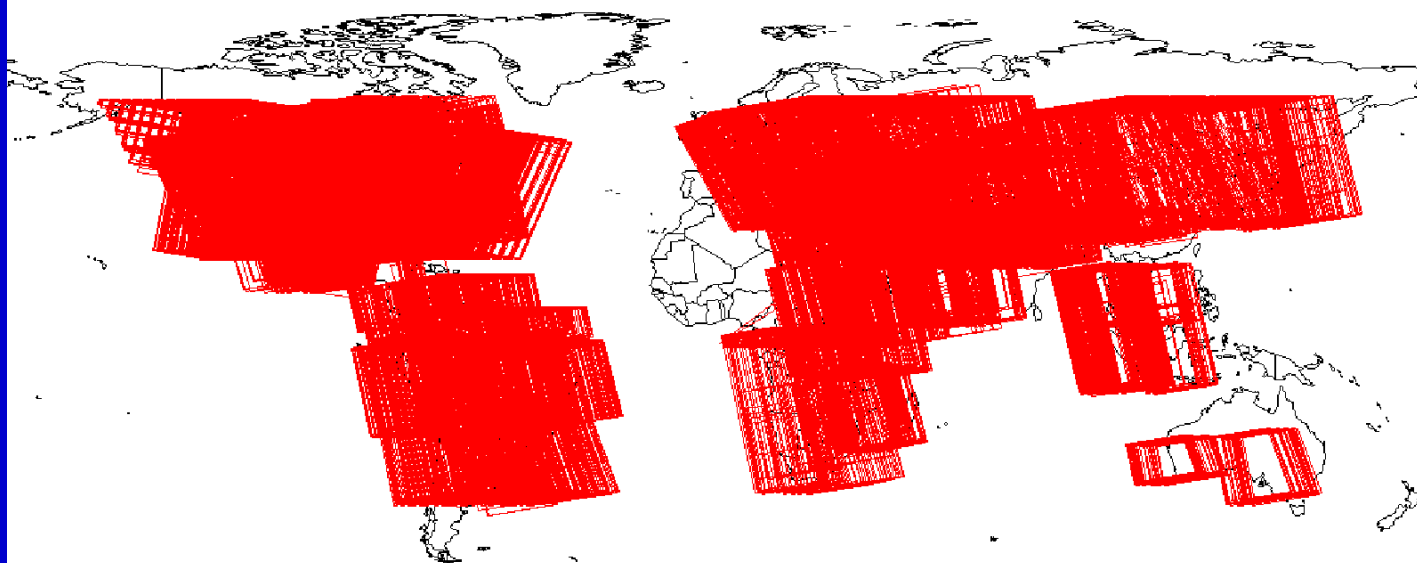


Current Sources For Global Ag Land Cover

- **Post/Country Reports**
 - **Economic Indicators**
 - **Agribusiness**
 - **Field Checking**
 - **Satellite Imagery**
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Daily, Regional Satellite Imagery Coverage

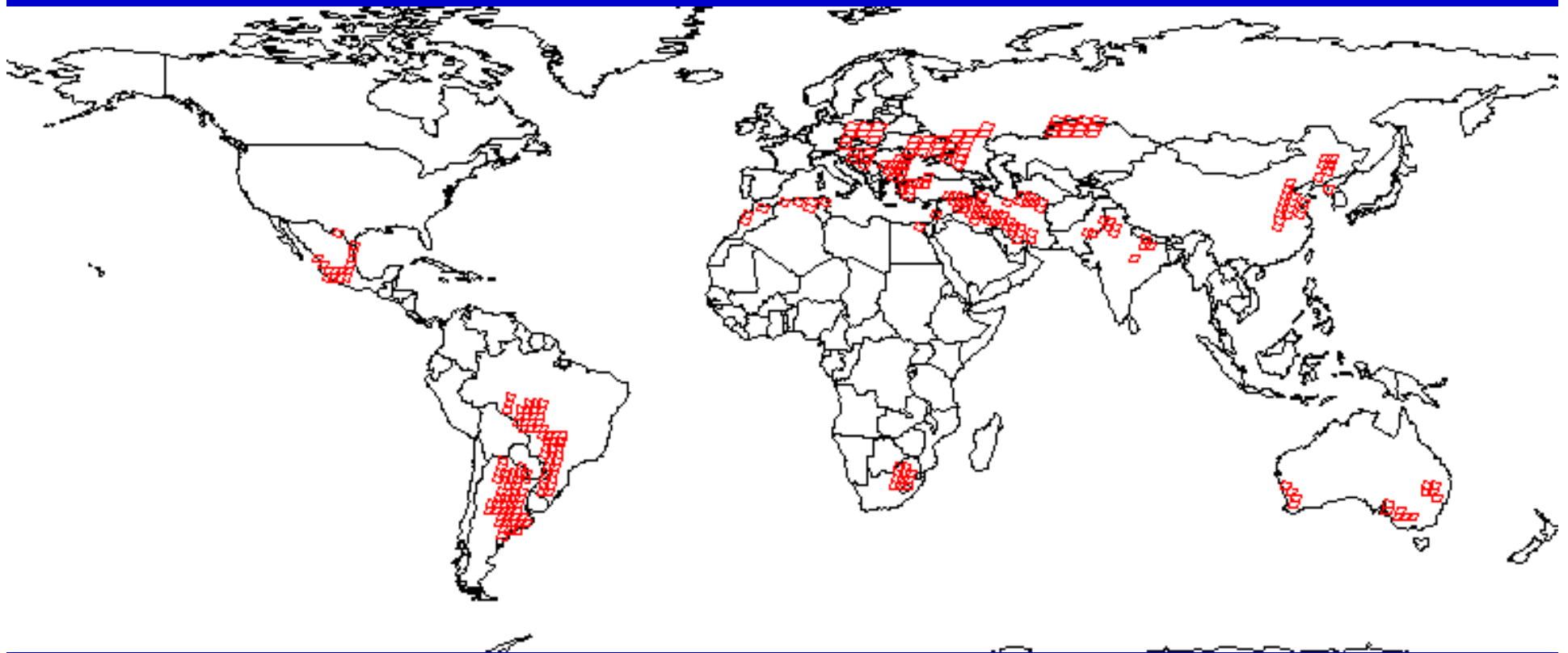
USDA/PECAD AVHRR-LAC/HRPT COVERAGE



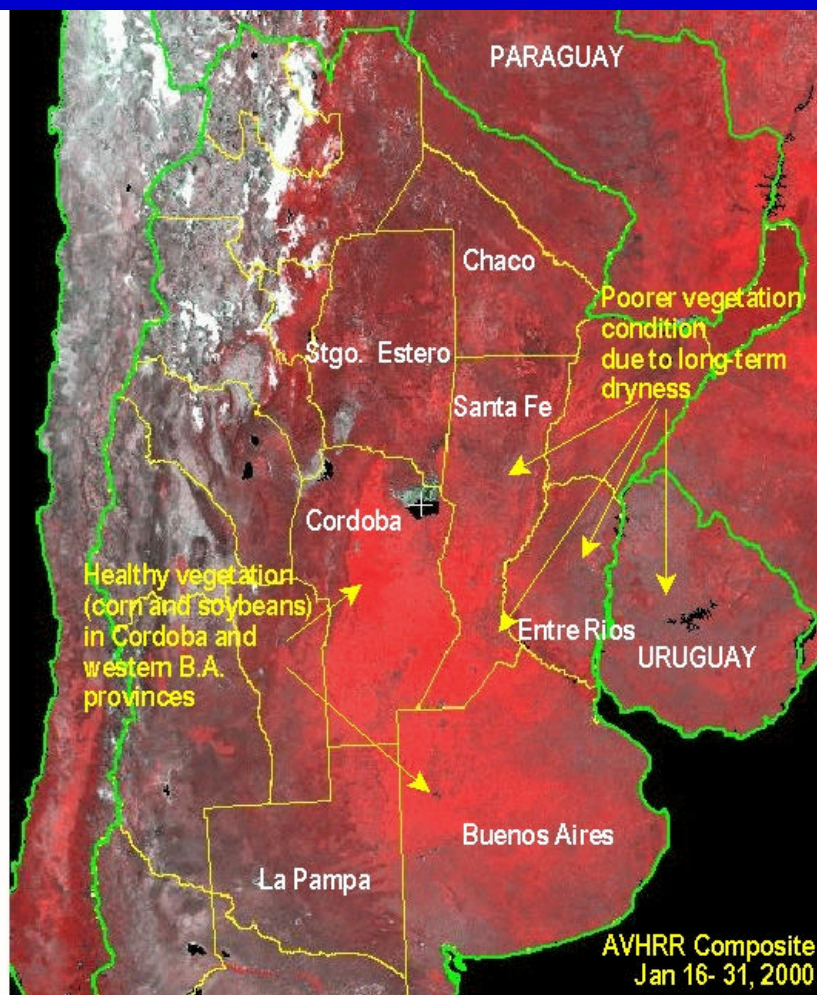
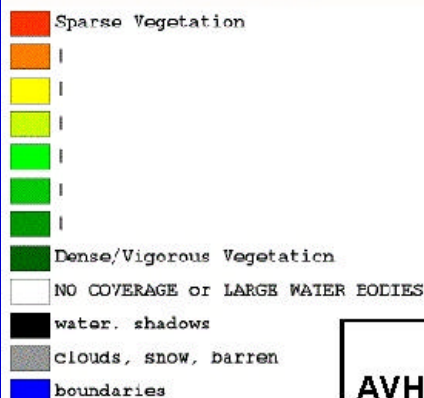
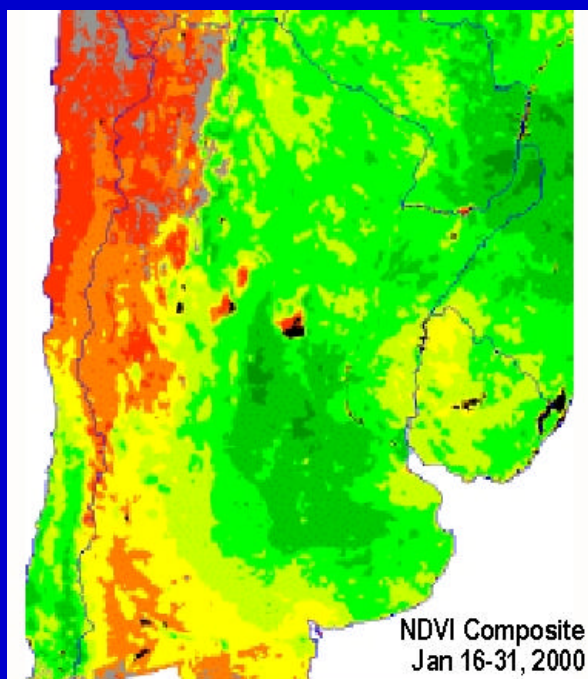
1 Jan 1999 to 7 Sep 1999

scenes = 6415

Biweekly, Local Satellite Imagery Coverage



Monthly/Weekly World Production Estimates



ARGENTINA
AVHRR and NDVI 2-week composites

USDA/FAS/PECAD

Dec 16, 1999

Landsat 7

NW of Buenos Aires, Argentina

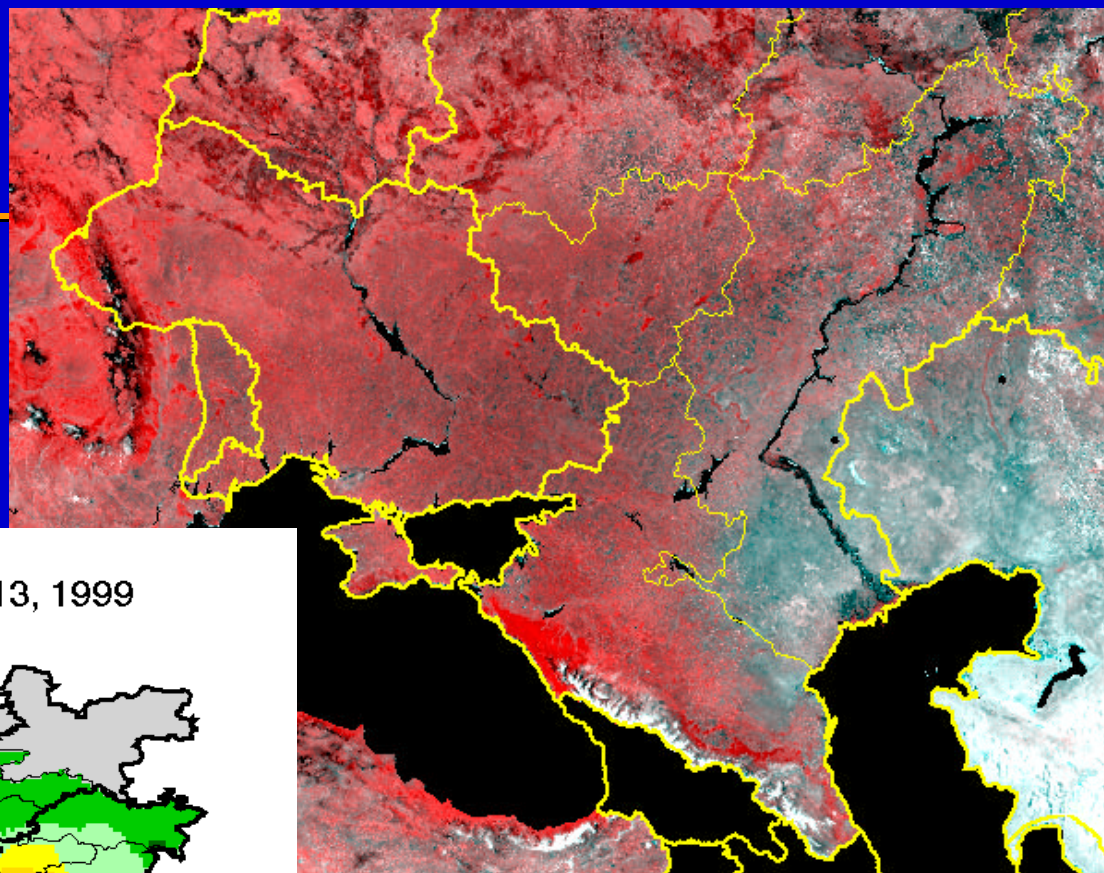


**Transition from
Corn to Soybeans**

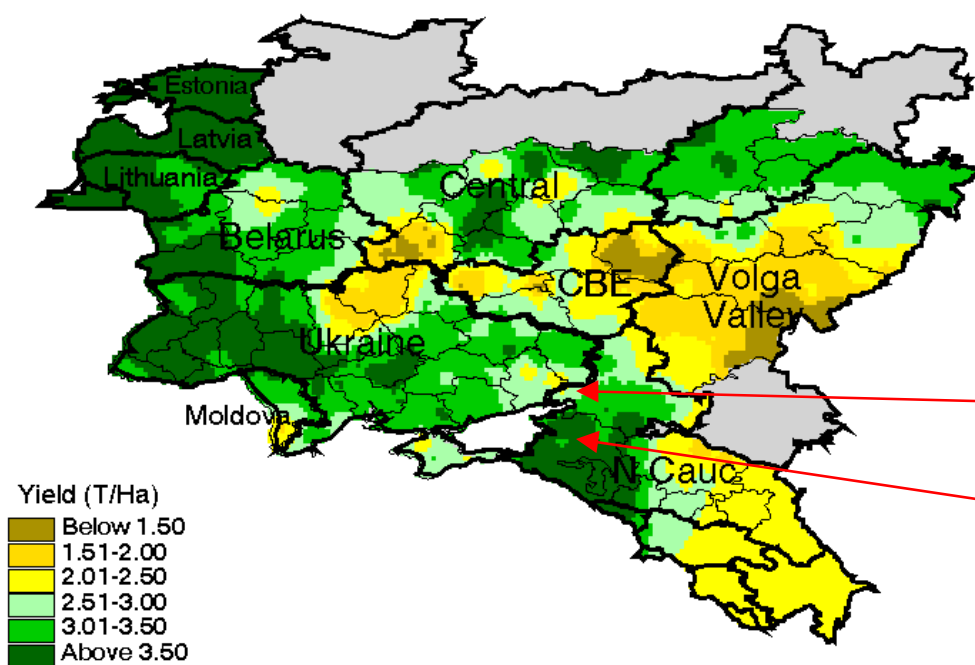
**Emerging
soybeans**

**Corn at
reproductive
stage**

FSU Winter Wheat Anomaly Analysis



FSU Winter-Wheat Region
Ritchie Yield Model Results: June 13, 1999



**Accurately forecast
regional yield
differences**

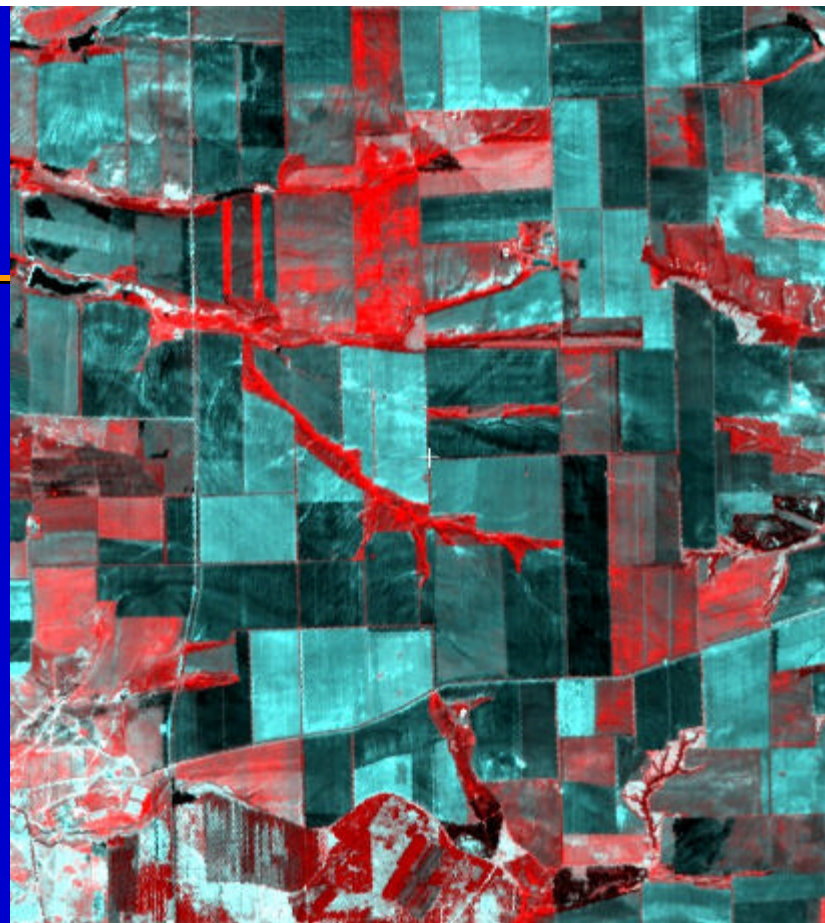
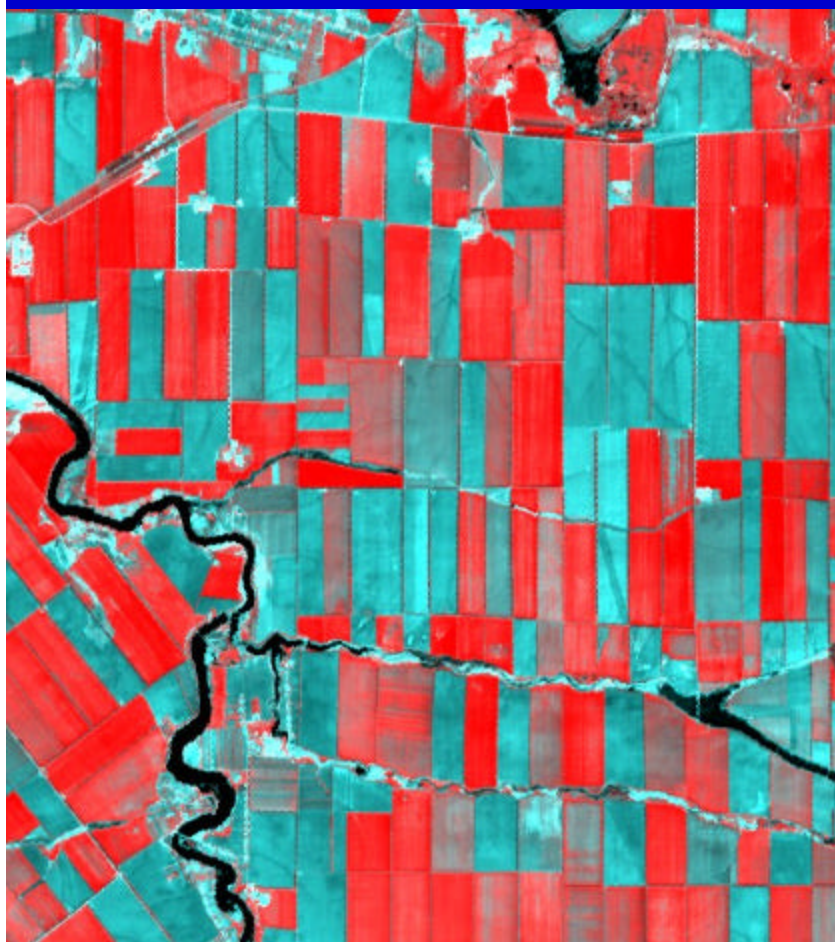
Production Estimates and Crop Assessment Division, FAS, USDA

**FSU Winter Wheat Anomaly Analysis
(Continued)**

Good Crop Conditions



Spot 2 - 19 Apr 1999



Spot 2 - 19 Apr 1999

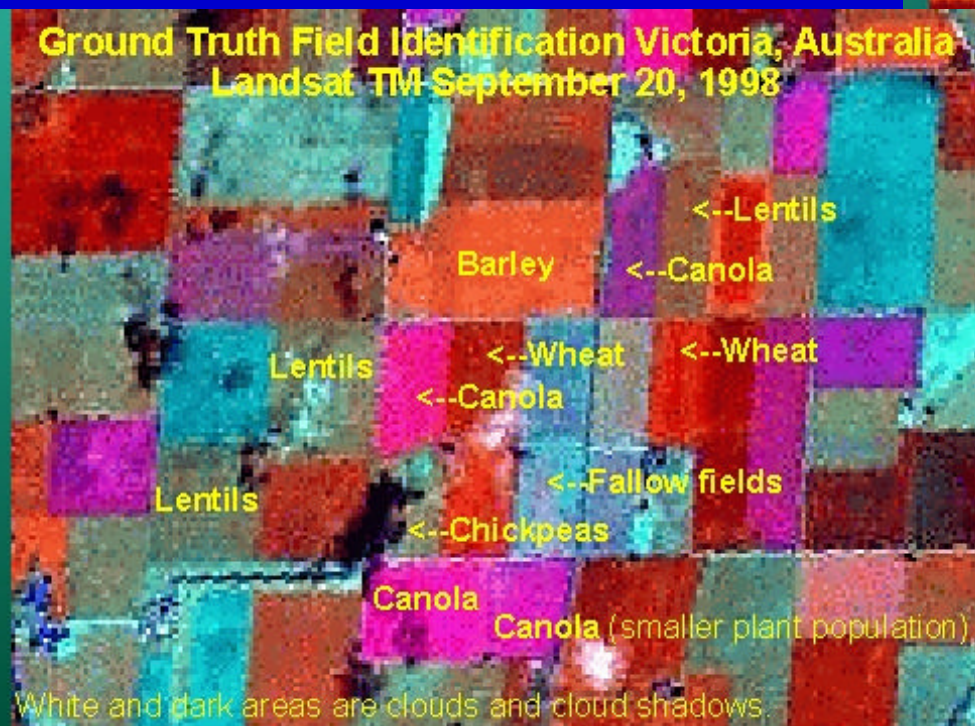


**Early warning of low
yield potential**

In-Country Crop Tours

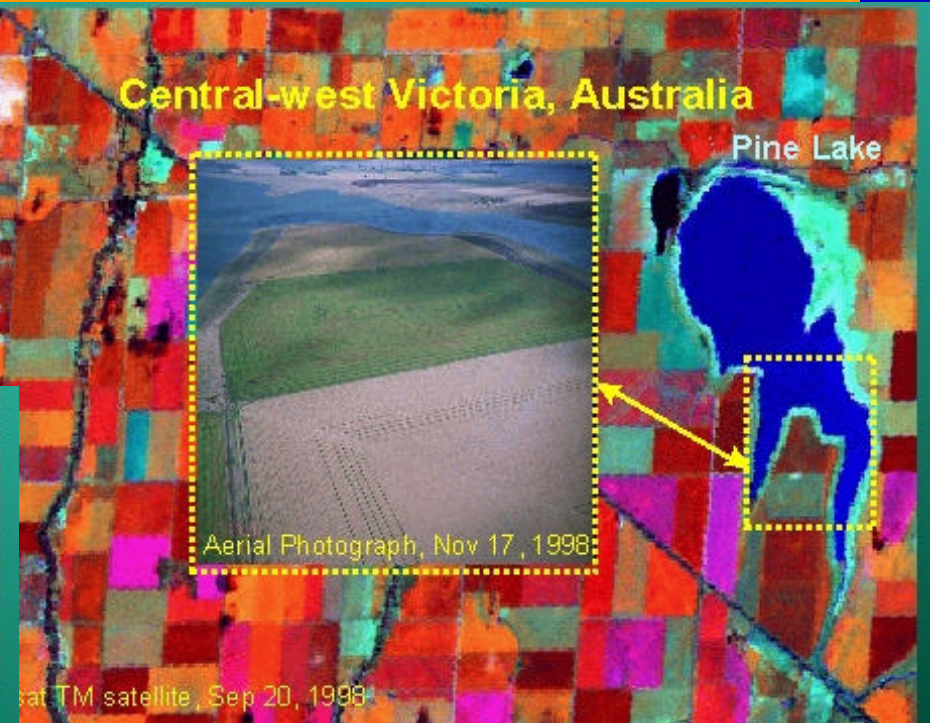
Country/Commodity/Agriculture
expertise is the foundation of
PECAD

Ground Truth Field Identification Victoria, Australia
Landsat TM September 20, 1998



Central-west Victoria, Australia

Pine Lake



Global Agriculture Disaster Response

Before

**Hurricane Mitch
Damage
Aguan Valley, Honduras**

After

**Tropical Oil
Plantations**

